

Appl. No. : 09/460,630
Filed : December 14, 1999



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end

a dual-purpose electrode formed on the insulating layer, extending over both the surface of at least part of the collection region and over at least part of the substrate, the dual-purpose electrode being intended to be driven by a first voltage that causes an electrostatic potential which collects in an area of the collection region beneath the dual-purpose electrode charges generated by electromagnetic radiation and by a second voltage, which is higher than the first voltage, for transferring the charges from the collection region into a detection region, and

an amplifier integrated in the pixel structure for amplifying the collected charge.

Please add new Claim 12 as follows:

C2 R1.126 13 (New) The pixel structure according to Claim 2, wherein the barrier region substantially impedes the diffusion of charges to said second region.

REMARKS

The June 10, 2002 Office Action was based upon pending Claims 1-11. By this paper, Applicant amends Claim 1 and adds new Claim 12. Thus, after entry of this Amendment, Claims 1-12 are pending and presented for further consideration. As set forth hereinafter, Claims 1-12 are patentable over the cited prior art. Applicant respectfully requests the Examiner to pass Claims 1-12 to allowance.

The specific changes to the amended claims are shown on a separate set of pages attached hereto and entitled VERSION WITH MARKINGS TO SHOW CHANGES MADE, which follows the signature page of this Amendment. On this set of pages, the insertions are underlined while the ~~deletions are struck through~~.

Claim Rejections

In the June 10, 2002 Office Action, the Examiner rejects Claims 1 and 4-6 as being anticipated by Miwada (U.S. Patent No. 5,196,719). Further, the Examiner rejects dependent Claims 2, 3, 7, and 8 as being unpatentable over Miwada in view of Kuroda (U.S. Patent No. 4,498,013). The Examiner also rejects dependent Claims 9-11 as being unpatentable over Miwada in view of Hook (U.S. Patent No. 6,194,702). As to Claim 1, the Examiner asserts (with reference to Miwada's Figure 2) that Miwada discloses a solid state imaging device having a p-